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ABSTRACT

Twelve adult basic education (ABE) providers who were pursuing a master of education degree by distance learning completed a questionnaire consisting of 39 open-ended questions about a wide range of aspects of dyslexia in ABE. Of the 12 respondents, 3 were convinced that dyslexia is real, 3 were unconvinced, and 6 were at least somewhat doubtful that it is a real neurological deficit. The respondents generally expressed an acute awareness of variability in dyslexia's "clinical picture" and the consequent difficulty in generalizing about it. Only six respondents offered a definition of dyslexia, and only one specifically stated that the condition is caused by a neurological deficit. Most of the definitions were highly unspecific. Opinion regarding the incidence of dyslexia varied widely: two respondents said it was 20-25% and over 25%, whereas one respondent said it was 1-5%. Most respondents were reluctant to assess students in ABE because they regarded assessment per se as threatening to the morale of students with a history of negative experiences in education. Only three respondents considered psychometric tests useful with ABE students. Respondents' expectations of students who had attracted a diagnosis of dyslexia were very limited: only four expected any progress at all. (Contains 150 references)
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Hugo Kerr.

"Dyslexia" in ABE: *Beliefs and Consequences.*

Dissertation submitted in part requirement of the M.Ed.
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Abstract.

Twelve ABE providers, all taking an MEd degree by distance learning, completed a 39 - item, open questionnaire which sought opinion on a wide range of aspects of dyslexia in ABE. Respondents discussed their beliefs about dyslexia, their assessment for dyslexia, their actions in respect of dyslexia and the outcomes they expected following diagnosis. The data were qualitatively analysed. A high degree of insecurity and confusion among respondents about dyslexia was revealed. A considerable degree of doubt as to its reality was found among respondents, together with a high level of variance of opinion, and strength of opinion, on all aspects of dyslexia. A tendency for the diagnosis to induce "learned helplessness" was detected. Teaching methods were altered in the face of diagnosis, as were expectations. The politics and educational value of the concept of a neurological deficit underpinning literacy failure in ABE are discussed in view of these findings.

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Introductory remarks.

(Why research this issue?)

The term "*dyslexia*" is used, by most of us, very casually. We use it without properly defining it, or we define it in terms so broad as to be next to pointless. We apply the term even when we are perfectly well aware that we have no clear definition of it, or explanation for it. When we discuss dyslexia it can be correspondingly difficult to see what, precisely, we are discussing in fact. The word is commonly used to mean nothing more scientifically exact than a difficulty with written language which appears to be inexplicable. We tend to use the term to denote a problem with reading &/or writing &/or spelling (and sometimes much more besides) which we find hard to understand - especially where there appears to be a discrepancy with what we'd otherwise expect from a particular person. We find the discrepancy so peculiar, so personally threatening, so deeply and intimately offensive, that we are driven to believe, almost to hope, that there must be something constitutionally wrong with the victim, that the cause must be a specific neurological deficit, beyond blame, safely located among all the other medical conditions beginning with "dys-". Are we, as we so frequently do in other contexts, blaming the victim in order to pass the buck?

There is an established dyslexia industry. There is very considerable vested interest. There seem to be as many causes for dyslexia as there are researchers into it, give or take, and as many wonderfully special assessment methods, remedial schemes and distinguished gurus as the market will carry. There are frequent, breathtaking illogicalities and inconsistencies in the reported science. Fantastically various definitions and explanations tumble around each other. Weird and colourful creatures appear fleetingly through the muddied waters - are they fish, fowl or beast? Mostly, they rapidly disappear again. None of this seems to bother us nearly enough.

A few quotes from around the literature on "*dyslexia*" will illustrate this muddle:

"Definitions of dyslexia are notoriously varied and no single definition of dyslexia has succeeded in gaining a scientific acceptance which even approaches unanimity... Definitions ... soon become muddled when the researcher or clinician is confronted with a variety of adult cases exhibiting highly heterogeneous profiles." Beaton et al (1997).

"Students had individual clusters of the cognitive weaknesses usually associated with dyslexia, alongside clear strengths in some cases..... They were also accompanied by widely varying individual configurations of literacy and other difficulties, so much so that the students themselves wondered if they were experiencing the same syndrome. The identification of dyslexia could not by itself predict the individual configurations, and the question of whether or not there was one distinctive syndrome became less important than the issue of learning to describe one's particular situation to a world largely ignorant of these matters, eg "I am dyslexic and for me this means that I literally cannot write my own name, but I can read quite well and I am now using a word processor." Herrington (1995).

"The fact that no exact definition [of dyslexia] has yet been produced is of little consequence...THERE IS ANOTHER QUITE DISTINCT GROUP who have difficulty with reading yet are very able in other ways... for convenience we refer to them as being DYSLEXIC or having DYSLEXIA. Parents, teachers and others understand these words and find them to be an easy form of verbal shorthand to describe the children with whom we are concerned."

Doyle (1997) p. 82. (his emphases)

"...the history of dyslexia research is littered with theories that were once widely supported but now lie abandoned on the scrap heap." Ellis et al (1997).

"...the research literature provides no support for the notion that we need a scientific concept of dyslexia separate from other, more neutral, theoretical terms such as reading disabled, poor reader, less-skilled, etc. Yes, there is such a thing as dyslexia if by dyslexia we mean poor reading. But if this is what we mean, it appears that the term dyslexia no longer does the conceptual work that we thought it did. Indeed, whatever conceptual work the term is doing appears to be misleading."

Stanovich (1994) p. 588.

Why all the fuss? What does it matter whether there really is such a deficit, so long as people who need tuition get tuition?

I believe it matters very much, for several distinct reasons. Firstly, much thinking about dyslexia is almost wilfully sloppy and sloppy science never did anyone any good, very particularly the subjects of it. Many appear willing to make the diagnosis, rather fewer are qualified so to do. Many diagnoses, as a result, stand on small, and very subjectively assessed, evidence. Then, people given a diagnosis of a neurological deficit may find such a label at the least disconcerting, at worst devastating. (*"That was another big shock, finding out you're disabled!"* cried one student. [Whitehouse 1995]) And then, what about those who don't achieve the label? Are they simply (and publicly) to be designated as stupid? And then, we don't appear to see over or around dyslexia; once the diagnosis has been invoked we seem to seek no other explanations for presenting phenomena. Simpler alternative, much more everyday, scientifically duller, less sexy (and much less lucrative) explanations are very much less assiduously sought once a diagnosis of "dyslexia" has been made. And finally, and crucially, in the face of such a diagnosis we act differently - we perceive a need for deficit-focussed, repetitive, tightly controlled and limited practice, and we seem to experience depressed expectations. This is, indeed, almost inevitable once we have attributed a student's presenting problems to a single, conceptually simple (albeit imperfectly understood), innate, fundamentally unalterable and uncontrollable cause. This appears to be classic soil in which to grow learned helplessness - and perhaps not only in the student.

Is any of the above true, though? If it were, to what degree might it be true? What perceptions do providers of Adult Basic Education (ABE) have of dyslexia - its aetiology and its likely effects? To what extent, if any, does the suspected existence of dyslexia inform or alter their professional behaviour? What difference, if any, does the establishment of a diagnosis of dyslexia make to the tuition ABE providers offer and what difference, if any, does it make to their perceptions of likely progress? What, if any, assessment specifically related to establishing a diagnosis of dyslexia do ABE providers make? What kind of assessment, if any, do they feel might be valuable? Do they find such assessment as is presently done to be meaningful?

This study was conducted in order to explore, very generally, the above questions. The most immediately practical way to attempt an exploration of such a deliberately loose nature was felt to be by administration of a single, very liberal questionnaire to providers of ABE.

At this point it behoves the researcher to come clean about the hypotheses prompting and informing the research. I suspect that, at least in the worlds of literacy science and ABE provision, the concept of "dyslexia" is muddled - as illustrated by the small list of quotes above. Perhaps it is similarly muddled in the minds of ABE providers who are often obliged, nonetheless, to adopt some policy, and take some action, in respect of it. A "diagnosis" of dyslexia may be based on fragile theoretical (and practical) foundations, but nonetheless have very concrete and far-reaching effects on allocation, attribution, tuition, expectation and performance. One fundamental assumption made at the very start of the research was that "dyslexia" meant developmental dyslexia (as opposed to acquired dyslexia), and that it meant this to researcher and respondents alike. The term will be used thus throughout this study. Dyslexia is, throughout, assumed to be understood as a difficulty in acquiring and managing literacy skills which is caused by a neurological deficit of some kind.

Theoretical review:

Qualitative method.

Parlett & Hamilton (1977) argued in favour of qualitative research as an essential tool in the social sciences. In particular they argued that the social sciences must of necessity confront and elucidate complex, multifactorial, nebulous and ill-defined concepts, behaviours and ideas. For this purpose quantitative research, they claimed, may often be inappropriate method. They wrote that validity in quantitative research usually demands either very "pure", simplified, data and thus meaninglessly artificial circumstances, or data on a scale which is commonly unattainable in the social sciences, or both of these. Quantitative research may as a result, they pointed out, be appropriate only to answer relatively simplistic questions and must then, inevitably, fail to address some of the complexities inherent in the social sciences with sufficient depth or subtlety adequately to unravel and describe them. Parlett and Hamilton described the alternative methodology, qualitative research, as "... *illuminative evaluation...*". "*Illuminative evaluation*", they observed, was mainly concerned with "... *description and interpretation rather than measurement and prediction.*" (1977 p. 10) The present study makes small claim to measure or predict but, as preliminary research into a previously under-researched area, is concerned with considerable description and some interpretation. It is almost entirely qualitative as a consequence.

This study will use a grounded theory approach to the consideration of its data (eg Denzin & Lincoln (eds) 1994 pp. 500-515) as the data themselves may be interrogated for theoretical insight at interpretation, the theory itself being an empirical finding. This approach is "... *particularly suited to research within a previously under-researched field.*" (Brine 1990 p.4) where "... *significance, theory-observation compatibility, generalisability, reproducibility, precision, rigour and verification ...*" are sought but where "... *creativity is also an important element.*" (Strauss & Corbin 1990 p. 31). No previous research into the perception and effect of "dyslexia" in ABE has been found and thus a preliminary study of this kind must address the formulation of some theory. Perhaps no more can be expected of such a preliminary study than that it reliably indicate some theoretical avenues which might benefit from exploration. Silverman (1993 p.46) summarises the grounded theory approach in three stages thus: developing categories which "... *illuminate the data...*", "*saturating*" these with "... *many appropriate cases in order to demonstrate their relevance*" and then

"... developing these categories into more general analytic frameworks with relevance outside the setting". This is exactly what the present study sets out to do, and to achieve.

A pure postal survey questionnaire, without the simultaneous application of any other methodology, harvests solely self reported data in a manner which precludes further exploration or any cross examination of the respondent. In the present study a postal questionnaire is the only source of data. These data are, as a result, inevitably subject to various sources of error or uncertainties. These need not be fatal to conclusions, as measures can be taken to understand, to reduce or to counter uncertainties, but the threat must be recognised from the outset and throughout. In the present author's view these sources of error preclude any real quantitative precision and it is mainly for this reason that only the simplest mathematical procedures are carried out upon the data herein.

Several questions inevitably nibble at the validity of data from a postal survey which seeks responses on complex issues. Did respondents give answers bearing any truth, and how was this captured? Can respondents adequately report on their own higher order cognitive processes, their beliefs and their attitudes? Did respondents answer the same questions as the researcher believes were put? Was the population sampled representative? Was there a difference between responders and non-responders which might affect the data? Has the researcher searched all the data dispassionately? Has data analysis been properly conducted? To what degree of precision may conclusions properly be taken from the data? Have definitions central to the analysis affected it and, if so, how? (eg Agne et al 1994 p. 149)

Some research into teachers' perceptions, attitudes and practices.

Fang (1996) extensively reviews recent research into the beliefs and practices of teachers. (The "... missing paradigm." p. 49) Fang's paper discusses whether teachers' beliefs consistently affect their practice or not, and also how reliably we are able to access, and report truthfully upon, our own beliefs or cognitive processes. Dealing first with the arguments for and against the idea that beliefs and attitudes consistently correlate with practice, Fang reports considerable research to indicate that they do. Indeed, and importantly for the present study, Fang reports that this body of research "... suggests that teachers' beliefs not only shape the nature of classroom interactions, but have a critical impact on students' perceptions of literacy processes as well." (Fang 1996 p. 53) However, Fang discusses other research which produced different conclusions, reporting varying degrees of

inconsistency between beliefs and practices. Fang concludes that there may be a difference between what teachers report that they do and what they actually do in real teaching situations where managerial considerations may be intrusive and where the teacher may be reduced to a "... dilemma manager; a broker of contradictory interests..." (op. Cit. p. 54) The real, untidily multifactorial world and the ideal world of pure pedagogical self report may be very different places, in other words. In the world of ABE, which is generally less crowded, more ordered and less frenetic, this particular effect may be somewhat, though presumably not entirely, reduced. Muthukrishna & Borkowski (1995), Chan (1994 and 1996), Johnston (1985) and Niedenthal & Halberstadt (1995) all demonstrate the profound effect mental constructs have on individual performance. Jordan et al (1993), Agne et al (1994), Dirkx & Spurgin (1992) and Ehringhaus (1991) all demonstrate the impact teachers' beliefs and attitudes have on their own pedagogic behaviours and, by extension, their students' academic (and affective) behaviours and performance. Westwood et al claim that the literature on this subject area:

"... reveals that teachers' beliefs are frequently so strongly held that (i) they can cause resistance to changes in curriculum and methods, (ii) they can lead to resistance to advice and support from resource staff and (iii) they can influence the degree to which teachers are willing or not to make adaptations in their teaching approach for students with problems in learning."

(Westwood et al 1997 p.226)

Fang discusses construct validity. What the researcher intends to mean may differ from what respondents believe they mean. Their constructs may not be the same, or mutually similarly understood. An example from the present questionnaire is at items 20 (a & b) and 21, where the researcher intends to explore respondents' beliefs about the underlying cognitive psychology of literacy skills and dyslexia, whereas several respondents clearly interpret these questions rather as explorations of the several strategies used by the students they teach. This construct disparity between researcher and respondent might have been eliminated had a larger number of pilot trials been carried out prior to issue of the final questionnaire. This, however, was not feasible in this instance owing to the depletion of the pool of available volunteers qualified and willing to complete pilot surveys using such a long and intrusive instrument.

Fang also considers the validity and reliability problems associated with such straightforwardly self reported data as is used in this study. Judgement (of respondents but also of researcher) may vary over time, with wording or presentation, and with mood. There are various problems of bias. The concepts and constructs considered are abstracted and may not be isomorphic with any "real life" situation. There may be only small "... *introspective access to ... high order cognitive processes...*" (Fang 1996 p.57) These issues of reliability and validity may be summed up as a single question: "*Are the [respondents] telling the truth?*" (Silverman 1993 p.100) As Fang points out, these sources of error may be reduced by using "... *multiple measures...*" to triangulate about the same data. This might have been achieved in the present study, for example, by follow-up interview and by direct observation of pedagogical practice, perhaps with simultaneous protocol gathering, had resources allowed. Unless some cross-checking, using different method, is undertaken the direction and importance of unreliability will remain imponderable. Jordan et al (1993) concede that teachers may have difficulty answering questions about beliefs. They suggest that research be directed to eliciting responses related more to exploring actual pedagogical practices than beliefs or attitudes. This present study attempts to do this.

It should be noted that postal questionnaire surveys have certain particular advantages. Several respondents indicated to the present writer, verbally or in covering letters, that they had ruminated considerably over their questionnaires, producing what they felt were deliberate and reflective responses. This was possible because the questionnaire was privately completed by them, with no time pressures. Such conscientiously produced responses may offer rich, sophisticated and authoritative truths to the researcher able to analyse the data with sufficient sensitivity. This study is on a small scale and with very limited resource. Whereas it would have been desirable to follow up with interview and observation, the constraints meant that a postal questionnaire, for the researcher alive to the provisos discussed, offered "... *a quick and simple way of obtaining broad and rich information.*" (Hopkins 1993 p.134)

Research instruments.

No previous research, as noted, has been found into the perceptions ABE providers have of dyslexia and its consequences, if any. Several studies of some size have, though, been made into teachers' perceptions in other areas. These have not only sought to elucidate perceptions, beliefs and attitudes but, in some cases, have also attempted to discover correlations between these and teaching behaviours in real life. Most have used survey data, often questionnaires with or without preliminary or follow-up interview. Those using questionnaire data were, in the main, concerned to produce quantitative data, others, particularly those using interview data, were almost purely qualitative. Ehringhaus (1991), for example, made a study of ABE providers' perceptions of testing in ABE. She used a questionnaire composed of a Likert-type scale, as did many of the studies considered. Ehringhaus devised her own questionnaire; many others used pre-formulated scales. Jordan et al (1993) used the "Elementary Teacher Interview" and the "Teacher Efficacy Questionnaire", while Agne et al (1994) used 4 such instruments; the "Teacher Efficacy Scale", the "Teacher Locus of Control Scale", the "Pupil Control Ideology Form" and the "Wilson Stress Profile for Teachers". Westwood et al (1997) report on their own instrument, the "TBALQ" (Teachers' Beliefs About Literacy Questionnaire). Apart from one of the instruments chosen by Agne et al, which is a "forced choice" item, all these are Likert or Likert-type questionnaires.

All such Likert-type scales are an attempt to isolate and describe, even mathematically to measure, constructs such as traits of personality, beliefs, attitudes or perceptions; to "... *make explicit the beliefs that teachers hold...*" (Dirkx & Spurgin 1992 p.23) and to operationalise the "... *complex aggregate of cause-effect propositions, rules of thumb, generalisations based on personal experiences, beliefs, values and assumptions that teachers use to guide their behaviour in the classroom.*" (op. cit. p.23) Some studies seek to isolate particular constructs by purely qualitative analysis. (Dirkx & Spurgin (1992) did this using semi-structured interviews serially; Johnston (1985) used in-depth case studies.) Other studies are quantitative. (Muthukrishna & Borkowski (1995), Niedenthal & Halberstadt (1995), Jordan et al (1993), Agne et al (1994), Chan (1994) and Ehringhaus (1991) all use statistical analysis aggressively.)

Many quantitative studies claim to isolate, and then to measure, their target constructs with mathematical precision. They go on to use the numerical data produced thereby in sophisticated statistical analyses to deliver purportedly precise, quantified definitions, directions, correlations and statements. However, the isolation of mental or emotional

constructs (for example "efficacy" or "stress") many of which remain loosely defined notwithstanding their apparently precise isolation and quantification, followed by the mathematical manipulation and comparison of these constructs to deliver apparently binding (because "statistically significant") conclusions, may be unreliable technique providing a spurious exactitude and dubious results. It is often possible to make explicit broad outlines and general directions using such instruments but it remains uncertain how precisely and meaningfully a construct may mathematically be measured. A mental construct is usually less securely quantifiable than, say, a simple emitted behaviour and more variable over time than a statistic such as, say, a basic literacy measure. This being so it is debateable how valid it is to apply statistical procedures to such construct data.

A further disadvantage of the Likert scale approach, where a scale does not already exist, for a lone and small scale researcher, is the demand the production and verification of such an instrument would place on the researcher's resources. Very considerable piloting and trialling is essential to demonstrate instrument reliability and validity. (eg Ehringhaus 1991; Westwood et al 1997) Indeed it is sometimes only possible to demonstrate internal validity for many such instruments of this type as the argument may be circular. Reliability may similarly sometimes mean, in the event, little more than test-retest reliability, another effectively internal measurement. (eg Westwood et al 1997).

The present study therefore claims two reasons for not using quantitative survey methodology. No pre-existing scale was found and the devising and piloting of such an instrument was felt to be well beyond the powers and resources of the present researcher. To attempt quantification of the target constructs of ABE providers' perceptions of dyslexia and their responses to its diagnosis was recognised to be difficult and to demand considerably more resource than was available. Furthermore, quantitative survey procedure was felt to be inapplicable for reasons of confidence. The study therefore seeks qualitative data; a deliberately free and loose questionnaire providing rich data which, if properly analysed, allows qualitative analysis to reach meaningful and reliable insights and defensible theoretical conclusions.

Validity and reliability must be very specifically sought when qualitative research is carried out. Where there is no quantitative analysis there is the risk of indiscipline and researcher prejudice influencing the outcome. (Olesen, though, (1994) claims that bias is a misleading notion in that research which is sufficiently reflexive and which provides a sufficiently transparent analysis may illuminate precisely because of a located researcher

stance.) Such a piece of qualitative research as the present study, deliberately loosely designed to entice as much response as possible from respondents, is inherently open to abuse in several ways. There are, nonetheless, steps which can be taken to discipline both the gathering and the analysis of the data.

Silverman (1993 p.43) says that "... *qualitative research can resemble a disorganised stumble through a mass of data full of "insightful" observations of a mainly anecdotal nature.*" He recommends the discipline of providing "... *sufficient "raw" data to allow the reader to separate data from analysis.*" (op. Cit. p. 44). In this study the reader is provided with all responses, and the origins of all responses, which are relevant to the delineation of each category or theme described therein. This process has included Altheide and Johnson's injunction (1994 p. 493) to "*Account for ourselves*" as qualitative researchers by deliberately showing "... *the hand of the ethnographer*" - leaving "... *clear "tracks".*" and by showing "... *how we claim to know what we know.*". This study attempts, in fact, to leave a full "*audit trail*" (Janesick 1994 pp. 216). It provides the reader with "... *information on the sample, core categories, key events and incidents, hypotheses and negative cases that emerged and were pursued during the research process.*". (Denzin 1994 p.508) The report of the research attempts to formulate empirically grounded theory from openly presented information in a transparent manner such that the reader may reach their own, informed conclusion as to the degree of validity delivered.

Following Silverman's advice again (1993 p.165) the study deliberately sets out to "*Count whatever seems to be countable...*" and thereby to reveal the real measure of responses claimed as relevant to the identification of categories or themes in the data, thereby to provide some indication of the authority with which these themes or categories may be regarded.

The reliability of the study, in part, relates to the degree to which any conclusions drawn from it may dependably be applied in the wider world, to the generalisability of the results found. The population used in the study is a convenience sample and is discussed below. All but two of the respondents operated in England and the Basic Skills Agency (BSA) has published figures for the provision of ABE in that country in their annual report for the period 1996 - 1997 (Davis 1997). The sample used in the present study was purely a convenience sample, but the pattern of respondents' circumstances proved to be reasonably close to the pattern found by the BSA, in several respects. The following table compares the present study population's circumstances with ABE learners situations as found by the BSA for England for 1996 - 1997.

Table one:

Comparing the sample population approximately with ABE provision in England.

	<u>Study population</u> (ABE providers) %	<u>BSA figure (England)</u> (ABE learners) %
<u>Organisation type</u>		
FE College	50	60.1
LEA provision	18	24.6
Voluntary	18	0.8
Prison	18	12.6
<u>Programme type</u>		
Workplace	8	1.6
Dedicated	54	58.9
Support	33	30.7
Family literacy	ca. 3.5	2.3

The major difference between the present sample and the BSA figures for English provision of ABE was that only 7% of the respondents to the present survey worked on a voluntary basis whereas the figure for England, for 1996-1997 was almost 60%. However since the purpose of the present study was to explore perceptions and beliefs among precisely those ABE providers who were most likely to make or affect policy and overall patterns of ABE delivery this was not felt to be problematic.

Dyslexia.

Developmental dyslexia, it can safely be assumed, is something all ABE providers, perhaps particularly those who are on an MEd literacy course and responding to this study, will have heard considerably about. There may well have been professionally informed discussion, with colleagues, about dyslexia in relation to their work as ABE providers. There is also ongoing discussion, and assertion, of dyslexia in the professional and the general media and so among their students and the management to which they must answer. A recent, high profile court case invoking dyslexia (the existence and precise diagnosability of which was implicitly accepted by the court) will have stimulated and sharpened this concern. Many ABE providers, present respondents among them, will have been obliged, as part of their professional duties and responsibilities, to formulate a policy in respect of dyslexia and to take particular actions as a result.

It is easy to forget, under these circumstances, that the whole concept of developmental dyslexia remains controversial. Stanovich (1994 p.579) says that "*The reading field seems unnaturally prone to popularising terminology that carries with it unproven theory*" and that "*The theory carried with the term 'dyslexia' seems to have outrun the evidence.*" (op. Cit. p.580)

The relevant theoretical background to the construct "dyslexia" must briefly be discussed in relation to this study, exploring, as it does, perceptions of and beliefs about, dyslexia among ABE providers, but the stance of the present researcher should first be made clear; it is that if the concept of "dyslexia" is to be meaningful it must denote a neurological deficit, a mental pathology or abnormality of some kind.

The search for a specific aetiology for the surprisingly poor literacy performance, commonly called dyslexia, which is indisputably seen in a small (and still debated) proportion of people has occupied many researchers and has been going on for many decades. Theories have come and gone. "*The concept of dyslexia has had a confused, cart-before-the-horse history.*" (Stanovich 1991 p.22)

A major difficulty with the condition has always been that of its definition (see also Reid 1994 pp. 3-4 for a review). What is dyslexia? Many studies (eg Turner 1997; Reid 1994; Klein 1993; Nicholson & Fawcett 1997) appear to employ circular argument, defining the dyslexic in terms of those variables they will go on to conclude are particularly characteristic,

perhaps even pathognomic, of the condition. Those studies that offer or infer a definition (eg Everatt 1997, Hanley 1997, Rack 1997) almost invariably simply use a discrepancy, sometimes defined in reading age years, between actual literacy skills and expected skills, given a subject's age and supposed "intelligence", as the pathognomic indicator of dyslexia. Beaton et al (1997) recognise this fundamental drawback when they write "*In practice, dyslexics are usually classified as those whose reading lags significantly behind that which would be expected on the basis of their chronological age and intelligence.*" There are, though, problems with basing the diagnosis which is fundamental to the entire analysis on a negative entity, on a simple gap between performance and potential. Such a definition, for instance, assumes the validity of precise psychometric measurement of "intelligence" and of the concept of "intelligence" itself. For many writers the "I.Q." is a very dubious notion - in the words of Stanovich (1991 p.9) "... one would be hard pressed to find a concept more controversial in all of psychology." Binet himself did not believe that intelligence was at all precisely measurable and, at the idea that it was a fixed and unalterable characteristic, is said to have said that we should "... protest and react against such brutal pessimism." (Kamin 1974 p.5) Gipps and Murphy (1994 p.71) declare that "... I.Q. tests are biased in favour of individuals from the dominant culture ... in the UK this means those from a white, male, Anglo-Saxon background and, in addition, middle class." The old adage applies - "I.Q. is whatever I.Q. tests measure". The difficulty is that there is small agreement as to what this might be.

There is confusion also as to the aetiology of developmental dyslexia, of which most respondents to this survey will probably be aware. Frank Smith says "*Of the allocation of blame for children's failure to read there is no end.*" (1994 p.300) He discusses research reviews which fail to find good evidence (or even logic) to support a specific, neurological aetiology for developmental dyslexia. He discusses a plethora of studies claiming that there are conceivable, and demonstrable, alternative aetiologies (for example affective and metacognitive explanations) for failure easily to acquire literacy skills. He is not alone. It is instructive to consider a single issue of the Journal of Research in Reading (20:1 February 1997) dedicated to "dyslexia in literate adults". The editorial acknowledges that "*The diversity of theories concerning the biological underpinnings of dyslexia is impressive.*" (Beaton et al 1997) And indeed, in this single issue of the journal suggested aetiological explanations include: foetal testosterone levels, an asymmetric planum temporale, corpus callosum morphology, the metabolism of proteins at the retina of the eye, an unspecified cerebellar deficit and magnocellular division impairment in visual and auditory systems.

Smith sagely quotes Vellutino (1987) when he says "*In any case not enough is yet known about how the brain works....*". (Smith 1994 p.301)

Not only is the aetiology of the condition (and the condition itself) still very much in doubt, the manifestations of it continue to be disputed as well. For example, of the various diagnostic signs suggestive of dyslexia proposed over the years, phonological deficits are presently considered almost pathognomic. (eg poor non-word reading, phonemic segmentation skills etc.) Hanley (1997) and Rack (1997) in the above-mentioned edition of the *Journal of Research in Reading* both claim phonological difficulties and deficits as strongly characteristic of dyslexia. Both, however, go on to reveal that a substantial minority of the "dyslexics" they studied had no such difficulty. This kind of wobble is characteristic of writing on dyslexia. Snowling et al (1997) in the same journal claims that phonological difficulties predict difficulty acquiring literacy, as is widely accepted, and goes on to conclude that poor phonological awareness skills may be a diagnostic, perhaps pathognomic, sign of dyslexia. Goswami and Bryant, however, point out that learning to read (at least an alphabetic script) is "*... probably the most important cause of awareness of phonemes.*" (1990 p.26). (and see also Rayner & Polatsek 1989) There are even claims that dyslexia may not occur at all in some writing systems (eg Barton 1994). Certainly many writers claim that the language structure has considerable effect on the patterns with which people learn, or struggle to learn, literacy, though Taft (1991 p.125) suggests that "*... some of the phonological effects that are observed in reading English are also observed in reading Chinese.*" and Perfetti and Zhang state that "*The central event of visual word identification is the identification of a word. The identification process itself yields the phonology.*" (Perfetti and Zhang 1995 p.184).

Not only are the cognitive aetiological explanations for, and characteristic signs of, developmental dyslexia numerous, various and varying over time, but there are also voices to be heard indicating that there may be much simpler, more everyday, alternatives for an apparently surprising difficulty with literacy. Johnston (1985) uses three case studies convincingly to show the tremendous importance of affect in the acquisition of literacy especially within the particular or general social setting (as always pertains in fact). Stanovich (1986) shows us the powerful "*Matthew effect*" – the impact early, or persistent, failure (with its associated affective consequences) appears to have not only on the acquisition of literacy skills but also on formal education per se and the experience and outcome of it. Reid (1989), Bynner and Steedman (1995) and Lake (1992) clearly demonstrate the marked

effect of social class on literacy acquisition. Beard (1987), Tizard (1993) and Gaines (1993) discuss many reasons for difficulties experienced in the acquisition of literacy by school children other than a neurological explanation.

Method.

Questionnaire and survey design.

A preliminary study into such an under-researched area may properly sacrifice the demands of quantitative precision (even if this degree of resolution was felt to be attainable) in an attempt to capture and begin to understand real categories and genuine themes among the perceptions and beliefs of ABE providers. From its inception the chosen research instrument, a postal survey questionnaire, was aimed at harvesting exploratory and largely descriptive data with as much delivered in respondents' own terms and from within their own perspectives, as possible. The more precise exploration of attitude and belief by administration of construct or repertory grid formulation (eg Webster, Beveridge & Reed 1996) or Likert-type scale measurement instruments (eg Westwood, Knight & Redden 1997) was considered, and was felt to be desirable at least as a check on the likely validity of the questionnaire tool. However, no such instruments were found to exist for the measurement of attitude or belief in respect of dyslexia, and the resource to construct and trial a valid instrument of this nature was unavailable. It was therefore decided to produce a questionnaire wherein respondents would be given a very large degree of freedom and invited to write considerably, with the main methodological emphasis laid on rigorous analysis of data once the questionnaires had been completed.

Initially a questionnaire comprising 43 items was devised and piloted locally, using three respondents. A 100% response rate to this pilot postal survey was achieved. The questionnaire was designed to give maximal freedom to respondents to comment upon different aspects of the issues being explored in it. Such comment was specifically sought and large amounts of white space were provided throughout the questionnaire to encourage and accommodate it. From the outset the study was intended to be almost entirely qualitative, allowing for the exploration of rather general issues in some personal depth, perhaps at risk of

an eventual inability to reach very firmly defensible conclusions. It was found in the event that pilot responses were full and apparently very frank, and that the white spaces offered were, in fact, well used by respondents to report opinion and feeling and to elaborate on answers to direct questions as hoped. The questionnaire was modified as a result of the piloting exercise, largely by removing four items and altering other items found to have been unclear, and liable to misinterpretation by respondents. The final version comprised 39 items in all (questions and subsidiary questions). A physically condensed version of the questionnaire, with most of the white space eliminated, is at appendix one.

The breakdown of subject exploration in the final edition of the questionnaire was as follows:

Table two.

Breakdown of questionnaire by subject.

Beliefs about dyslexia	15 items
Methods of assessment	8 items
Beliefs about assessment	5 items
Effects of diagnosis	3 items
Background (ABE providers)	3 items
Diagnostic signs of dyslexia	2 items
Purely exploratory	2 items
Background (students)	1 item

The final edition of the questionnaire was sent by post to sixteen possible respondents. It was felt unlikely that the researcher would be able to gain access to sufficient numbers of ABE providers unknown to him and geographically widespread, and that, particularly given the long, somewhat intrusive character of the questionnaire itself a low response rate would, in any case, be highly probable. It was therefore decided to approach a straightforwardly "convenience" sample (eg Cohen & Manion 1994) of ABE providers known to the author and probably motivated enough to complete such a daunting questionnaire. The sample comprised students on the same course as the present writer, namely the MEd Literacy course (by distance learning) at the Department of Education, Sheffield University. All possible

respondents were, or had been, students from either the 1995, 1996 or 1997 intake onto this two year course. They were selected by searching a list of students and their interests which was provided to students on the course for networking purposes for each of these annual intakes. A questionnaire, with covering letter and SAE, was sent, by post, to every student declaring an interest in ABE, as an ABE provider, and permitting their name and details to be placed on that list, 16 students in all. Eight responses were received following the initial posting, a further four following a single follow-up contact, with a further covering letter and SAE (Cohen & Manion 1994). (The covering letters are attached as appendices 2 & 3) The final response rate of twelve was, therefore, precisely 75%, giving a total number of possible responses of 468. All the questionnaires returned were found to be useable.

The response rate (at 75%) was strong. Nonetheless, 25% did not respond to the questionnaire. Is there a difference between responders and non responders which is likely to affect the conclusions of the research? Four people failed to respond; all of these had completed their MEd and were, therefore, no longer actually students on the course. All those who did respond, on the other hand, were still actively studying. If this is the difference between responders and non responders which was responsible for non-response or response then it is felt unlikely importantly to affect conclusions or results.

Researcher prejudice is an obvious risk. The innate tendency to select particular data to bolster a theory or prejudice, or exotic data for its dramatic effect, is diminished by the inclusion of large amounts of "raw" data in the report of its analysis. (Silverman 1993 p. 44). The deviant case is considered, and specifically included in the analysis. Both the Rosenthal and Hawthorne effects are probable. All respondents are personally known to the researcher, whose opinion of dyslexia was known to several prior to issue of the questionnaire. This must have had an effect, probably unquantifiable, upon responses made to the present researcher in respect of dyslexia. All respondents were also aware that, in some sense, albeit confidentially, their responses might see publication. This will have had a similarly unquantifiable effect on responses, in that there will have been a tendency, conscious or not, to "correct" opinion or reported behaviour such as to correspond to "best practice" or "political correctness". In such a small scale study there is little to be done to compensate for these effects other than remaining aware that they may be affecting data, and where and how this is most probable.

The raw data consisted of a possible 468 responses contained in 12 completed questionnaires. These data were analysed vertically and horizontally for themes, categories and correlations. Data were horizontally analysed after the questionnaires had been disaggregated and re-assembled by question, across respondents. Responses from each item were transcribed and examined collectively, item by item and then between related items. The testimony of all respondents was examined, item by item, in every subject area. Commonality of response, or deviance from any such commonality, was noted. Items from related subject areas were examined together. As a result of this horizontal examination of responses certain themes and categories emerged, each such major theme being either substantiated by minor contributory themes or challenged by data from related items. A careful note was made of both confirmatory or deviant data and both are reported. The data was re-assembled and examined within respondent, vertically, respondent by respondent, in the light of emergent themes and theory. It was found possible to discern the rudimentary characteristics of categories of respondent belief systems as a result, at least in terms of emergent themes.

Ethical considerations.

As with all research, there are ethical parameters within which the methodology operates. The analysis of ethical issues offered in Cohen and Manion (1994) makes a useful foundation for discussion of the possible ethical complications in a questionnaire-based study. These authors (p. 348) distill the argument down to a "cost / benefit" analysis wherein "*...the basic dilemma residual in a great deal of social research.*" may be more closely examined. The benefits of the research are naturally held to be great, at least by the researcher. The research may produce "*...crucial findings leading to significant advances...*". Failure to carry through the research may even "*....cost society....ultimately the opportunity to improve the human condition.*". Against such grandiose claims, however, there is the possibility that subjects of the research may be harmed in some way as a result of it. They may suffer "*...affronts to dignity....loss of trust in human relations....loss of autonomy....loss of self-esteem.*". The researcher may counter that subjects may enjoy "*...satisfaction in having made a contribution to science and a greater personal understanding of the research area...*".

As Cohen and Manion point out

"The process of balancing benefits against possible costs is chiefly a subjective one and not at all easy. There are few or no absolutes and researchers have to make decisions about research content and procedures in accordance with professional and personal values."

(Cohen & Manion 1994 p. 348)

In this study, in which adult basic educators all of whom are mature students on a masters level course focussed on literacy are sent a questionnaire and an invitation to complete it very freely, there would seem to be small likelihood of damage to participants. The person to whom the questionnaire is sent can decide not to complete it. A questionnaire can be answered absolutely confidentially. Although a name was requested it was made clear to all those receiving the questionnaire, in an accompanying covering letter, that it might be withheld. In the event every respondent gave their name, implying that they were not afraid of harmful consequences which further implies that every respondent trusted the assurance of confidentiality given at the very outset of the survey. A questionnaire, particularly where, as in the present study, the information sought relates to attitudes, beliefs and actions which pertain to the work environment and are some distance from the subject's personal core, can also be completed such that personally sensitive information does not emerge.

Access to subjects of research may involve ethical questions relating to the degree of willingness to provide such access. The present study uses the names and addresses of people stated to have an interest in "adult literacy" which have been taken from a "networking" list compiled by the unit offering the masters degree course on which all subjects are, or were, enrolled. These names were voluntarily placed on this list by participating students, together with their literacy and educational interests, specifically to encourage such cross-fertilisation among students. It has therefore been assumed, for the purposes of this study, that agreement to access has been implicitly given for such research purposes. A response rate of 75% is held to indicate that the questionnaire met with little resistance, and the open and copious manner in which those who responded did so indicates that most subjects were positively willing participants in the study.

Findings:

The Sample:

The twelve respondents revealed various background and experience, and were working in a variety of ways to deliver ABE to a variety of client populations. Two respondents had left school without any qualification, though both now held first degrees from the Open University. Three other respondents held teacher's certification but not a degree. One held two degrees unrelated to ABE, at master's level, and was also a qualified lawyer. Only five respondents (42%) had qualifications related specifically to ABE provision; four of these held the City & Guilds 9282 or 9285 certification, or both. Of these four, one also held the assessor D32/D33 certification and a certificate of Teaching of Adults with Special Needs. One respondent also held the RSA Diploma in Specific Learning Difficulties (Dip SpLD). One held the D32/D33 and the RSA Dip SpLD as well as a teacher's certificate but not the 9282/9285 certification. There were thus three respondents (25%) (numbers 1, 6 and 10) who had at some time taken formal training leading to a qualification relevant to dyslexia diagnosis and management, none of the remaining nine respondents (75%) reported anything other than slight acquaintance with any theory relating to this area. Eight respondents (67%) held basic teacher's certification.

The sample taken for this study is pure convenience, but appears nonetheless to have some advantages. The respondents may, perhaps, be rather more thoughtful and engaged than the average ABE provider, having elected to take an MEd in the same subject as occupies their working time. The response rate of 75% when faced with a questionnaire of such length as was used in this study, and the generous completion of it by respondents, is felt to be evidence of such engagement. Respondents on a masters course, sent such an open questionnaire from a fellow student, are perhaps also unusually likely to answer in a reflective manner. A purely convenient sample is not selected according to any principle and an unquantifiable degree of representativeness will usually be assumed. Representativeness, in attitudinal terms, with such a small sample selected for convenience, is theoretically problematic. At analysis of the responses, however, no unusual bias was detected. No extreme responses were received and where a contentious or strong view was expressed it was never such as will not be heard in informed discussions in the real world.

Respondents taught (or managed) in various situations, for various clients. All were straightforwardly involved in ABE delivery, though two were recently become managers rather than coal-face teachers (numbers 6 & 11). One of these (7%) managed workplace literacy initiatives, one (7%) managed ABE provision and family literacy provision county-wide. Two respondents (18%) worked entirely within the prison service (numbers 8 & 10). All respondents taught almost solely literacy, though many reported occasional demand for numeracy (this being ignored altogether for the purposes of this study). One respondent (number 12) worked exclusively with elderly clients in Washington DC, on a voluntary basis, the remainder worked with the general 16 + population. A high proportion of this population was reported to be unemployed. Almost all students were described as self-referred and almost all tuition took place in classes (rather than one-to-one).

Theme Analysis.

The data obtained from the survey were rich, but complex. In this section the analysis will be summarised and emergent themes will be delineated. In the following section the analysis itself will be displayed in greater depth so as to reveal the emergence of theme from data. This process itself, it is felt, offers the reader their own insight into the data and their meaning, as well as making the researcher's analytical processes more transparent.

The overwhelming theme revealed by the data is variance: constituent themes are here summarised.

Summary of Themes.

1. Are respondents "persuaded" or "unpersuaded"?

The data reveal that three respondents appear to be convinced that dyslexia (defined by them as a neurological deficit resulting in difficulty in acquiring literacy skills) is real, but that three are not convinced. Of the remaining six respondents, some are more dubious as to the existence of dyslexia, using this definition, than others. It is possible to read the data as indicating that there is a greater tendency towards doubt than belief and so that the sample population overall is more unpersuaded than persuaded.

2. What are the signs of dyslexia?

Great variance was shown among respondents in the number of signs held to be indicative of Dyslexia (at item 6(a), for example, where one respondent chose six times as many signs as another), though there was near unanimity in choosing the signs which indicated simply emergent literacy and especially those which indicated a discrepancy model diagnosis. Surprisingly, in a period when the "discovery of the gene for dyslexia" was once more being loudly proclaimed only four respondents indicated their belief in the heritability of dyslexia. Generally respondents expressed an acute awareness of variability in the "clinical picture" and the consequent real difficulty in generalising about the syndrome. Their awareness of variability concerned some respondents, but not others, in respect of their belief or otherwise in dyslexia.

3. What causes dyslexia?

Ten respondents felt able to give an opinion as to the aetiology of dyslexia, in the sense of describing the processing difficulties, or cognitive procedures, which might be affected by it. The variance among respondents was strong, and several gave aetiologies for the condition which showed wide variation. Four respondents, particularly those who appeared to be persuaded, described a very wide variety of aetiologies, and so "clinical pictures", they felt it was reasonable to accept while yet remaining within the overall diagnosis of dyslexia. In general the unpersuaded required a narrower aetiology and so tighter clinical picture.

4. What is dyslexia?

Respondents were at their most insecure when discussing the definition of, and seeking the "hardest facts" about, dyslexia. Only six respondents offered a definition at all and only one respondent specifically stated that the condition is, in her opinion, caused by a neurological deficit. Most of the definitions offered were highly unspecific. Ten respondents discussed alternative explanations for poor literacy skills, many associated with affect rather than cognition. Three respondents noted that "dyslexic" students might nonetheless perform well, sometimes outstandingly, in closely related, perhaps even in the same, cognitive areas.

5. Who is dyslexic?

There was considerable variance among respondents in respect of the incidence of dyslexia among ABE students. The two respondents who worked in the prison service gave incidences of 20-25% and over 25%, whereas another respondent gave an incidence of only 1-5%. This is a five-fold plus difference. The respondent giving the highest incidence was also the most persuaded and also the respondent who assessed most thoroughly. The deficits shown by dyslexics were selected with great variance, with five respondents adding items to the list offered in the survey questionnaire.

6. What about assessment?

Respondents were often unhappy when considering assessment of students in ABE for what seemed to be two reasons. First they appeared to regard assessment *per se* as threatening to the morale of students who already had a surfeit of negative experiences of education and who, respondents felt, were therefore vulnerable to assessment techniques as such, and particularly to the danger of further labelling. Secondly, though, many respondents were unhappy at the idea that psychometric testing be applied to ABE students. Only three respondents felt that psychometric tests were "useful" and these respondents were not very enthusiastic about their use. Only two respondents claimed to use such tests in screening for dyslexia and of these only one described a "full battery" of tests, the other respondent relying far more on a set of performance tests, taken from Klein (1993), than any real psychometry. Several respondents were negative about psychometric tests, one pointing out that results might limit expectations.

7. Actions, outcomes and consequences.

Respondents' expectations of students who had attracted a diagnosis of dyslexia were very limited. Only four expected any progress at all, and of these one was only lukewarm. Only two were confidently upbeat about expected outcomes. Respondents were divided as to how they tackled the tuition of dyslexics. Six said their tuition for dyslexics was different than for non-dyslexics, five said it was not. Those who adapted tuition did so by restricting it and teaching skills and sub-skills through behaviourist reinforcement regimes. The consequences of a diagnosis of dyslexia were considered by some respondents. Two responses indicated that the diagnosis might have a negative effect whereas four claimed the response might be positive in that the diagnosis may remove the stigma of stupidity from a literacy struggler.

Themes from data: the analysis revealed.

1. Variance.

"... there doesn't seem to be any pattern or consistency."

The most striking theme to emerge from the rich data harvested by this survey was the high degree of variance of perception, attitude and belief among respondents in respect not only of dyslexia itself but also of the cognitive psychology of dyslexia and of literacy, and even of cognitive psychology itself. This variance was most detectable between respondents, on horizontal "across respondents" analysis of the data, although variant, and occasionally apparently contradictory, responses were given by some respondents at different points in their testimony, so that some "within respondent" variance was also found at vertical analysis of the data.

Variance of perception of, belief about and attitude toward dyslexia is a major emergent theme; many minor themes found among the data contribute to the revelation of this variance. These minor themes include: variance among respondents in their degree of belief in, or scepticism of, the concept of developmental dyslexia when defined as a problem caused by a neurological deficit; variance among respondents in respect of the signs, or number of signs, they consider to be necessary for a diagnosis of dyslexia to be made, or to be indicative of dyslexia; a belief (noted as such by respondents themselves on the questionnaire, or less consciously revealed) that the condition can occur in a wide variety of manifestations and have a wide variety of causes or effects; bemusement about dyslexia itself, or ignorance of its characteristics, causes or possible effects reported by respondents themselves on the questionnaire, or less consciously revealed; the reporting by respondents of surprising and illogical abilities in cognitive fields closely related to literacy, or even in literacy itself, in students diagnosed, and apparently accepted by respondents, as being "dyslexic".

2. Are respondents "persuaded" or "unpersuaded"?

"Dyslexia, as a concept, is dubious."

A preliminary characterisation of two extremes among respondents may be made. At one extreme are the three respondents (#1, #10 & #12) who appear to be convinced, indeed state that they believe, that there is a neurological deficit which causes dyslexia. One defines dyslexia (at item 29) as *"A pattern of difficulties in reading and writing caused by a neurological deficit..."* (#10). One says *"I do feel that there is an underlying neurological deficit in a dyslexic person."* (#1) and one says *"I think the neurological explanation is convincing but I am open to other possibilities."* (#12). At the other extreme are the three respondents (#9, #3 & #7) who appear to be convinced that there is no such neurological deficit and that the explanation for observed difficulty in acquiring literacy skills lies elsewhere. One (#9) states (at item 2b) that she does not come across students who, in her opinion, might have dyslexia. She says (at item 19) *"My gut feeling is that "dyslexia" is a label for people experiencing difficulty reading and writing."* and (at item 27) *"I'm not satisfied at all with the label "dyslexic"."* One says *"Not satisfied that the deficit is neurological."* (#3) and one says (at item 2b) *"Dyslexia as a concept is dubious."* And (at item 31) *"I am still not convinced."* (#7).

I shall refer throughout this study to these two extremes as the *"persuaded"* and the *"unpersuaded"*. In between them lies a spectrum of belief. Some respondents discuss dyslexia seriously at points, while yet remaining largely unpersuaded overall (eg #4 & #5), others are largely persuaded while yet showing moments of doubt (eg #6 & #2) as will be shown in due course. A quarter of the respondents state that they believe dyslexia is caused by a neurological deficit, another quarter state they do not so believe. A third quarter specifically express doubts.

"I am still not convinced."

There is some scepticism, or doubt, about dyslexia observable at points in the testimony of a majority of respondents. Three respondents (25%) actually express a view that dyslexia is improbable, and on the basis of their responses to this questionnaire could be classified as unpersuaded, but a further three (25%) expressed considerable doubts as to its reality at some point in their testimony.

21 responses, from six respondents (50%), say things like: *"I also think that we are probably all somewhere along a continuum of dyslexia."* (#2), *"It is difficult to be sure of a diagnosis."* (#8), *"I also feel that a majority of my students show some indication of dyslexia at some time in their learning."* (#8), *"My tutors and I all came out dyslexic!"* (#2), *"Dyslexia as a concept is dubious."* (#7), *"We can all identify with some form of learning disability."* (#7), *"No."* (#9, when asked whether she finds students with dyslexia at question 2 (b)), *"... whether they are dyslexic is another matter."* (#7 when, at question 3, giving an incidence of 5-10% for "severe literacy difficulties"), *"My gut feeling is that 'dyslexia' is a label for people experiencing difficulty reading and writing."* (#9), *"Not satisfied that the deficit is neurological."* (#3), *"I'm not satisfied at all with the label dyslexic."* (#9), *"I have worked with students who feel they are dyslexic when, in my view, they are in need of broad-based basic skills support."* (#6) and *"I am still not convinced."* (#7).

"I went to school on the days it rained!"

In similar vein, though perhaps less consciously doubtful, many responses indicated that explanations other than dyslexia for the surprising difficulties with literacy sometimes seen were commonly considered.

For example ten respondents (83%), in 17 responses, said things like: *"I think the neurological explanation is convincing but I am open to other possibilities."* (#12), *"Many of the ... problems could have explanations other than dyslexia."* (#3), *"... being tired at the end of a long day, a neglected education, etc."* (#2), *" - I think most people will at some time or another (especially when under pressure) display some of the characteristics [of dyslexia] - I do!"* (#8), *"... something to do with cognitive disruption or lack of concentration, psychological/emotional lapses."* (#4), *"I feel that when I am tired*

or anxious I display certain dyslexic characteristics." (#8), *"... being frightened of words."* (#1), *"Inhibition due to emotional factors."* (#7), *"Problems at home (early childhood)."* (#9), *"With my client group [prisoners] significant drug abuse could be a contributory factor."* (#10), *"Low self-esteem, feelings of uselessness and stupidity."* (#9), *"Maybe not neurological - maybe a connection with phonological awareness."* (#3) and even *"I went to school on the days it rained!"* (#12). (This last quote comes from a black man who spent his youth in the state of Alabama in the USA.)

"...making rapid progress on the computer."

Three respondents point out that "dyslexic" students they have taught (all of whom had been diagnosed as dyslexic) have, notwithstanding, done well in cognitive domains which appear to be very closely related to, perhaps even actually the same as, the cognitive domains in which literacy skills are learned.

One (#2) says that *"... most [of the students she has taught who have attracted a diagnosis of dyslexia] read ardently about particular topics of interest."* One (#3) says that *"One of my students (probably (genuinely?) dyslexic) ... has had considerable success with British Sign Language. I too have attended classes in British Sign Language, and found it embarrassingly difficult!"* One (#9) describes *"A 'dyslexic' student who ... has literacy difficulties but is making rapid progress on the computer."*

Although there was little overt comment made by these three respondents in respect of these somewhat anomalous observations, the reason for their inclusion in the testimony of these respondents may have been a concern with the disjunction they appear to make evident.

"I find the whole thing difficult."

Other responses expressing factual hesitancy were found throughout the data.

23 responses from seven respondents said things like: "I don't know enough." (#4), "No idea!" (#4), "Sheer guesswork!" (#5), "I am very ignorant." (#2), "I have no idea." (#11), "I have ... not enough information to answer." (#12), "I don't have enough experience to comment." (#5), "I can't really say." (#4), "I find the whole thing difficult." (#11), "I am more and more aware of how little I know." (#12), "Don't know!" (#11), "I still feel I should know ... more." (#2), "... more aware of my own ignorance." (#5), "I need to read more ..." (#1), "I need to read and think a bit more." (#1), "We, as a team, do not feel confident to make an accurate diagnosis." (#8) and "I'm aware of the two extremes, the rigid, Cynthia Klein, Alpha to Omega structures and the "dyslexia's all in the mind" approach ... the truth is probably somewhere in between." (#2).

3. What are the signs of dyslexia?

"It depends on the individual."

On the subject of dyslexia itself the data provided very striking evidence. Considerable variance was consciously noted by respondents themselves. Sometimes this related to variance found by respondents among students they taught as to the manifestations, and patterns of manifestations, of the dyslexia certain students were said to be suffering from.

For example: 19 responses from eleven respondents said things like - "... there doesn't seem to be any pattern or consistency." (#8), "... it depends on the individual." (this remark was delivered three times by two respondents, #8 & #1), "I don't feel able to generalise." (#5), "...Difficult to generalise as every one is different." (#6), "... would not generalise. Manifests itself differently in different people." (#10), "Dyslexics tend to perform very erratically." (#6), "... "Sometimes" applies - "doesn't always work" also applies." (#12), "... differs." (#11) [item 26: do dyslexics progress?], "... varies from individual to individual." (#2), "... each pattern of dyslexic difficulties tends to be

slightly different." (#10), *"It varies."* (#2) and *"Each pattern of dyslexic difficulties tends to be slightly different."* (#10).

This enormous variation in presumed aetiology, and thus effect and manifestation, was nowhere cited by any respondent as a threat to a belief in dyslexia as a condition. However, it was noticeable that the more persuaded respondents were also those most able to accept huge variety in presumed cognitive aetiologies and thus manifestations while retaining a belief in a single syndrome.

Responses to two items show two important general effects. These are the responses to items 20a & 20b which relate to the specific cognitive psychology underpinning reading and writing. The first effect shown is that of phrasing questionnaire items too loosely. The two items quoted allow respondents too great a degree of freedom, enabling them to respond more generally than was intended. The second effect demonstrated is that every respondent took the opportunity to do this, and did it in terms showing that there may be a reluctance among respondents to think in "narrow" cognitive terms, and a strong preference to think in practical terms, to think about immediate strategy and about the best solution to a task in hand and for the "learning style" of the individual person facing it. This strong thread of practicality and liberal individuality, which appears to be common to all respondents and to influence their responses, must be taken into account when analysing the data, particularly where they deal with cognitive psychological opinion. Examples follow:

20a: the cognitive routes to reading. Five suggested routes were offered and ten respondents (83%) chose all five. Comments included: *"It all depends on the individual learner's abilities, opportunities and experiences."* (#1), *"Order of relative importance depends on standard of reading ability / difficulty of text."* (#3), *"Reading is a combination of all the above techniques, but personal preferences and the reading matter itself dictate the particular strategy or strategies used at any one time."* (#6), *"A combination of the above and depending on the individual."* (#8), *"Different relative importance for different people."* (#10) and *"Different stages / ages change the priorities.."* (#12).

20b: the cognitive routes to spelling. Four suggested routes were offered and eight respondents (67%) chose all four. Comments included: *"We all remember things in different ways."* (#2), *"We all apply a range of strategies to suit the purpose and our learning style."* (#6), *"A combination of all or some of these listed, depending on the individual and their level of experience to date."* (#8), *"Different relative importance for different people (as for 20a)."* (#10) and *"Relative importance changes depending on age and stage."* (#12).

A useful starting point to demonstrate variance among respondents in respect of a single issue explored in a single item from the questionnaire is an analysis of the responses obtained to question 6 (a). This question comprised a list of tick-boxes against 22 diagnostic or associated signs of dyslexia gleaned from various sources (eg literature from the Dyslexia Institute and the British Dyslexia Association, also Klein 1993, Doyle 1996, Reid 1994 and Turner 1997). Each one of the 22 of the signs used for question 6 (a) is considered highly indicative of dyslexia by more than one of these sources. Signs extended from early behavioural problems and hyperactivity through cognitive fields (memory, dexterity, visuo-motor control, left-right confusions etc.) to the classic "discrepancy" signs. The question actually read: *"Please indicate the signs you consider to indicate possible dyslexia, or an increased risk of dyslexia, from the list below"*. As well as the 22 signs offered, respondents might tick a 23rd box labelled *"other - please specify"*. Three respondents did this.

Eleven respondents answered. (The single respondent (#9) who did not respond to this question had elsewhere indicated her belief that dyslexia was not a neurological condition and was not, as a result, in her opinion, a real, discrete entity.) The average number of boxes ticked among these eleven respondents was 11.2. The average respondent, in other words, selected almost exactly 50% of the signs offered. This is a large number of indicators, and a surprising variety of disparate signs, for a syndrome presumed to have a single neurological aetiology. However, this average hides very great variation between respondents (and see table three below); the number of signs chosen by the lowest 25% of respondents averaged at five (23% of signs ticked) while that chosen by the highest 25% was seventeen (77% of signs ticked). One respondent (#11) chose only three items (14%) while another (#10) chose nineteen (86%). Of the signs offered, fifteen (68%) were chosen by 50% or less of respondents while seven (32%) were chosen by over 50% of respondents. "Apparent attentional deficit" was chosen by only 25% of respondents and "intellectual timidity" by only 33%. Only four respondents (33%) chose the "family history" (heredity) sign, whereas eight

(67%) chose "poor memory". Six respondents (50%) did not choose any of the first seven items offered while four (33%) chose four or more of these signs.

Two of the signs (a tendency to produce odd spelling patterns, and reversals or inversions) are, in the opinion of the present researcher, only indicative of early (emergent) literacy *per se* (and are specifically not indicative of any reason for any difficulty) yet 75% of respondents chose these two "emergent literacy" signs as indicating the possibility of dyslexia. The three straightforwardly "discrepancy" indicators (spelling, reading and writing skills below apparent intelligence) were chosen by 92%, 83% and 92% of respondents respectively. The signs indicating emergent literacy and discrepancy together accounted for 42% of the selections. These signs and poor memory together accounted for 48% of selections. These responses are tabulated below.

Table three:Analysis of responses to item 6(a)

<u>Diagnostic or associated signs of "dyslexia"</u>	<u>responses</u>	<u>% of respondents</u>
History of hyperactivity	1	8
History of squint	1	8
History of disruptive behaviour	2	17
Apparent attentional deficit	3	25
Late talking or speech problems	3	25
Difficulty finding "right" words (speaking)	3	25
History of family with low literacy	4	33
History of unusual clumsiness	4	33
Problems with dexterity	4	33
Poor handwriting	4	33
Difficulty following directions/instructions	4	33
Intellectual timidity (fear of failure)	4	33
Left-right confusions	5	42
Visuo-motor, tracking, coordination problems	6	50
Difficulty expressing meaning on paper	6	50
Difficulty pronouncing polysyllabic words	7	58
Poor memory	8	67
Tendency to produce odd spelling patterns	9	75
Tendency to produce reversals/inversions	9	75
Reading skills below apparent intelligence	10	83
Spelling skills below apparent intelligence	11	92
Writing skills below apparent intelligence	11	92
Other (please specify)	3	25

The three respondents who added signs, by choosing item 23, added *"left-handedness"* (#6), *"other members of the family dyslexic"* (#6), *"difficulty in reading non-words"* (#7) and *"omitting syllables when writing."* (#12). The reference to left-handedness probably relates to the theory that crossed laterality is implicated in dyslexia. Reading non-words, acting as an indicator of phonological deficit, is presently a highly regarded sign of possible dyslexia (eg Stanovich 1997; Goswami 1997; Hanley 1997; Howard and Best 1997; Snowling, Nation, Moxham, Gallagher & Frith 1997).

4. What causes dyslexia?

"... 'sometimes' applies ... 'doesn't always work' also applies."

Respondents, when answering questions relating to underlying causation of "dyslexia", gave a varied collective testimony. A total of 22 responses from ten respondents gave the following results:

Some responses indicated belief in a tremendous breadth of aetiology - *"... auditory / visual / motor processing difficulties."* (this respondent (#6) gave this response twice), *"... verbal rather than visual, a deficit in brain connecting language sounds with visual images with a difficulty retaining this information in the memory."* (#1).

One respondent indicated poor phonological ability and memory - *"... auditory deficit, problems with working memory ..."* (#10), *"... working memory difficulties and phonological awareness deficit."* (#10).

One respondent indicated memory, phonological ability and transfer or metacognition - *"Memory seems to be a major problem. Sounds and not being able to take a word ie be - ing and transfer to do - ing."* (#9). (This respondent is unpersuaded and was, in fact, discussing

the aetiology of observed literacy difficulties in various of her students under the heading of dyslexia, a common practice in the literature.)

Other responses indicated a possible belief in a single aetiology, but what this might be varied widely between respondents. For example explanatory responses varied from visual - "Inversions / reversals" (#2 & #12), auditory / phonological - "... struggling to "hear" the chunks in sounds, problems with voiced and unvoiced sounds seem to be the most common problems." (#2), "Phonological deficit." (#10), "... maybe a connection with phonological awareness." (#3), "Reading non-words." (#7), "auditory deficit" (#5), affective - "Inhibition due to emotional factors" (#7), "Psychological / emotional lapses." (#4), to memory - "Problems remembering sequences." (#12), "Problems with working memory." (#10), "Difficulties following instructions." (#7).

5. What is dyslexia?

"It has no precise definition."

One of the themes expressed consciously by respondents was their own insecurity as to the facts of dyslexia. At item 29, for example, respondents are asked to produce a definition of dyslexia ("Can you define dyslexia?"). Five respondents did not do so, though all five had written considerably about dyslexia in the course of giving their testimony. Of these, two simply offer no answer, one states clearly "No I can't!" (#11), one says simply "No!" (#2) and one states that "It has no precise definition." (#7).

Of the remaining seven respondents, one says only "Not in such a small space - I would need to write several thousand words." (#6). One respondent says that dyslexia is "A pattern of difficulties in reading and writing caused by a neurological dysfunction closely related to working memory difficulties and phonological awareness deficit. Each pattern of dyslexic difficulties tends to be slightly different." (#10) (This respondent, who is fully persuaded, is the only one to include any aetiology in her definition.)

Other responses include cognitive skills other than purely those of literacy as: *"Dyslexia is a broad term used to describe a range of learning difficulties involving the processing of information particularly with language in the written form."* (#1) and *"... difficulties (what these are I'm not sure) in grasping the point, or the codes, at varying levels and various stages of learning and that, until the codes are deciphered ... there are going to be difficulties in assimilating certain aspects of literacy / numeracy ..."* (#8). One respondent (#3) who states, elsewhere in the questionnaire, that she believes dyslexia may involve other cognitive skills than those involved in literacy, and specifically states elsewhere that she is *"Not satisfied that the deficit is neurological."*, nonetheless defines dyslexia at item 29 thus: *"In a literacy context, as a deficit which leads to skills in reading / writing / spelling which are unexpectedly poor, bearing in mind the general level of intelligence of the student."*

6. Who is dyslexic?

Many items seeking "factual" information produced widely varied responses. Items 3, 4 & 5, for example, explored beliefs about the incidence of dyslexia in the student population. Two respondents (17%) did not respond. One respondent (#7) gave an incidence of 1-5%, four respondents (33%) gave an incidence of 5 - 10%, three respondents (25%) gave an incidence of 10 - 15% and two respondents (#8 & # 10) (17%) gave incidences of 20 - 25% and more than 25% respectively. (Interestingly, these two respondents were the only teachers in this survey working in the prison service. The much higher incidence perceived among prisoners indicates either misdiagnosis, or a population which is neurologically different from non-prisoners.) Three respondents (25%) reported no gender difference in the incidence of dyslexia, but five (42%) reported that there was such a difference, with one non-response and three (25%) responding that they did not know whether there was a gender difference in incidence or not. When asked to estimate any gender difference found only four (33%) responded, with one claiming an incidence three times greater in males and three (25%) reporting twice the incidence in males. When asked to consider differential social class incidence (item 16) five respondents (42%) failed to respond. Of the remaining seven respondents, none appear to believe that middle class children are actually more likely to suffer dyslexia, but that there is a *"Powerful lobby of middle class parents..."* (#7), that the

"Incidence of perceived dyslexia is more frequently middle class. Incidence of actual (diagnosed) dyslexia possibly not." (#3), that "Middle class parents would be more pushy in getting help for their children." (#8), and that "Parents need to be confident and persistent to persuade schools that a diagnosis is needed. Adults need to be able to pay." (#5).

"Who should we call dyslexic?"

Item 21 asks *"What is the main deficit found in dyslexic students, in your opinion?"*. Seven alternatives with tick-boxes were offered and an eighth tick box offered *"All of these, or none of these, and in what order of relative importance?"*. There was very little unanimity demonstrated in responses to this question. Every respondent answered, though one (#11) did so only to say *"Don't know"*. Every deficit offered was ticked at least twice (by 17% of respondents) but none more than five times (by 42% of respondents). A further seven items were added by five respondents (*following instructions, reading non-words, memory, sounds, learning transfer, auditory deficit and working memory deficit*).

7. What about assessment?

Thus far the variance shown by the respondents to this survey in respect of perceptions of what might be thought to be the "facts" of dyslexia has been considered. There is also evidence of variance among respondents in their enthusiasm for, and application of, specific assessment aimed at screening for dyslexia. In answer to item 2 (a) *"Do you try to discover whether students are suffering from dyslexia?"* six respondents (50%) say "yes" and six (50%) say "no" to this question. Only three respondents (25%) use a specific screening procedure (item 7a). One of these respondents (#11) only does this *"if there's a work [by which is meant a disciplinary] issue."* She uses the *"county psychologist"* to do this screening. The remaining two respondents who screen do so personally. One (#6) uses a self-designed screening system derived from Klein (1993). (Klein, in this booklet, does not recommend true psychometric testing as part of the diagnostic procedure, relying instead on literacy skills performance tests.) One respondent (#10) uses a large range of performance

and psychometric tests including *"Bangor. ADQ. Coded non-word reading test. Diagnostic spelling/reading tests. Phonological awareness tests. Underlying ability tests (eg K.BIT)."*

According to the dyslexia organisations (eg the Dyslexia Institute, the British Dyslexia Association etc) and much of the literature (eg Turner 1997, Doyle 1996, Rack 1997, Reid 1994, Gottardo et al 1997) the application and interpretation of a battery of psychometric ability tests is absolutely fundamental to the diagnosis of dyslexia. Only one respondent (#10) actually did this.

"I do not value them at all."

The survey briefly explored respondents' perceptions of psychometric tests *per se*. Again the results showed variance. In respect of I.Q. tests, only two respondents (17%) claimed to use these (though one of these respondents barely did so in fact, as she indicates elsewhere in her questionnaire), ten (83%) did not use I.Q. tests at all.

Asked (at item 11) whether IQ tests are either *"a) reliable or b) useful"* five respondents (42%) replied "no" to the first question (ie that they were not reliable) and four (33%) failed to respond. Three respondents (25%) said they were useful but one of these said *"Only for children."* (#7), one said *"I don't really know, having never used them. Considering the level of student who comes to ABE in prison it would be interesting to try."* (#8) and one said *"Only for the discrepancy model."* (#10). Among those who responded negatively to this question one said *"I do not value them at all."* (#1), one said that *"ABE is already being flooded with assessment ... despite the fact that testing represents failure in many students' minds."* (#2), one said *"... the norms are narrowly defined."* (#4) and one said that *"IQ tests may limit our expectations of what they [students] may achieve."* (#5).

When asked whether they found psychometric tests, in general, useful (at item 12) one respondent said *"yes"* (#8), one said *"Yes ... but"* (#7) and one said *"sometimes"* (#10). Three respondents (25%) said *"No"* to this question (ie they claimed that psychometric tests were not useful) and six (50%) failed to respond. Though many respondents appear to have weak opinions in respect of psychometry, there is clearly a wide variance between those who

find IQ tests worthless (#1), even potentially dangerous (#5), and those who enthusiastically apply them (#10).

8. Actions, outcomes and consequences.

"... progress may well be slow."

Item 22 asks *"Do you apply different methods when teaching ... someone diagnosed as dyslexic?"* six respondents (50%) did so, five (42%) did not and one failed to respond. When asked how their tuition would differ, the responses, from the six who said that it would, were as follows: *"1) Much more reinforcement and over-learning. 2) more frequent revision of newly learned material, 3) I'm more sensitive to possible limits of concentration span and ability of memory power, 4) I'm aware that progress may well be slow."* (#1), *"More use of multi-sensory/multi-media approaches and ... regular revision..."* (#2), *"I've used illustration/colouring tasks based on calligraphy..."* (#4) *"Not radically different - just more specific to their own particular needs. eg I might talk to the whole group about a wide range of strategies but help the dyslexic to concentrate on the more limited range suited to his needs."* and also *"They need a more structured programme."* (#6), *"Thinking skills, organisation, planning."* (#10) and *"I provide more material with consistent sound patterns... eg for a problem with 'w' I wrote a text with a lot of 'w's (none of them silent!)"* and *"... I move a non-dyslexic on without extra repetition."* (#12).

"... it is difficult to be sure..."

When asked (at item 26) about the progress of "dyslexics" five respondents (#5, #8, #9, #10 & #11) clearly expected some, though two of these were not very confident. One of these respondents (#8) was only able to say *"I would say yes, but it is difficult to be sure of the diagnosis and to generalise."* (#5) wrote that *"There is usually some progression but ... learning is slow."* Seven respondents (67%) felt altogether more negative. Many respondents felt progress would be *"slow"*, *"slower"* or *"much more slow"*, (these words

were used by six respondents). One respondent (#1) felt that "... progress for a dyslexic student tends to be slower than for a non-dyslexic ...". (#2) claimed that "They tend to make slower progress...". (#3) said she expected progress but "Much more slowly.". (#6) felt that "They will take longer..." and that there would be a "... tendency to regress...", and saw the need for "... more support and a structured programme.". (#7) said that "Progress can be slow..." and saw the need for "Constant reinforcement and consolidation". (#1) feels the dyslexic will not succeed without "... concentrated individual attention". (#9) said that "...if there is a willingness on the part of the 'dyslexic' to put in the time and effort and show willing, progress can be achieved." (#11) said, simply, "yes" [dyslexic students can make progress]. (#12) said that "There is slow progress in reading which is used outside 'class'. Difficult to see progress in writing and whether it is used outside.".

Only two respondents felt confident that a dyslexic would progress to independent, autonomous, functional literacy away from "the classroom". One (#9) was entirely "unpersuaded" but the other (#10) was completely "persuaded" saying "With appropriate tuition, yes and they tend to go on to use learning outside the classroom once they've experienced success."

"Boosting confidence is all!"

A diagnosis of dyslexia is overtly recognised by several respondents as something which may not be neutral. Two responses suggest that it may be strongly negative on occasion, but four that it may relieve some students (though perhaps not all). One respondent (#5) says "Some feel relieved that they have been given a reason for their difficulties, some see it as doom and their motivation may be damaged.". One (#12) says "I must tread carefully – I mentioned the word 'dyslexia' and it produced a negative reaction on the spot and negative feedback. 'My son says I don't have dyslexia!'. " One (#7) says that "... it sounds better to be 'dyslexic' than a 'reading retardate'." and another (#6) that "... it is much more socially acceptable to admit to having dyslexia – a medical condition – than 'just being thick'." One (#3) says that "A diagnosis of dyslexia does seem to reassure some students. They would much rather be thought of as 'dyslexic' than merely 'stupid'. There is a feeling at college that if a student wants to be thought of as dyslexic then we should 'go along with it' even if unjustified if it keeps the student happy. Boosting confidence is all!".

Discussion.

The survey indicates a degree of confusion and uncertainty among the sample population of ABE providers about developmental dyslexia. It also demonstrates, however, that the same ABE providers are often professionally required to adopt a stance, practically and theoretically, and to take (and defend) action, in respect of dyslexia. The survey shows that when one of their students was diagnosed as suffering from dyslexia almost every respondent tended to experience lowered expectations of their tuition, and to alter it, as a result of the diagnosis. The effect of the diagnosis in almost every case was to circumscribe expectation and reduce tuition to a cognitive task-oriented methodology aimed at learning abstracted and simplified items and sub-skills which were to be mastered through behaviourist reinforcement scheduling. Is this important?

We are all "pop psychologists" now, all conscious, these days, of the importance of subconscious, interpersonal influences like, for example, "body language". We are aware that we affect each other in deep and sometimes dramatic ways, often without intent and frequently without either party being particularly aware of it. We accept that the world of the subconscious affects behaviour and attitude in important ways, and that although the perceptions on which the subconscious may base its judgements may be at variance with reality it is the world as invented by the subconscious, in most circumstances, which is of greatest moment. (Indeed, the world of the "conscious" is, anyway, inevitably based solely on data refined and provided by the "subconscious".) We function, globally speaking, according to the reckonings of our subconscious, in what is, unavoidably, a virtual world. (eg. Norretranders 1991, Dennett 1991 & 1996, Calvin 1997, Greenfield 1995, Kosko 1994, Goleman 1996.)

It is a truism to declare that a teacher affects a pupil and is affected by them in return. Either may be strongly affected by how the other feels or looks, what the other does and says, how the other behaves. A student may be much affected by the expectations and attitudes shown by their teacher. (eg. Fang 1996, Peterson et al 1993, Chan 1994 & 1996, Muthukrishna & Borkowski 1995) A student's perception of the causes of their own success or failure may be an important aspect of the fallout of such interaction. (*"People can acquire helplessness vicariously – by observing others."* Peterson et al 1993 p.139) Crucially to this discussion, the interaction itself may be radically different according to the teacher's perception of the causes of the student's success or failure. (eg Jordan et al 1993, Bar-Tal

1984.) The perception a student has of the reasons for success or failure, at least in part gained from interaction with the teacher, may affect self-image, behaviour and attitude, performance and achievement. All of this may, in turn, further affect the perceptions of both the student and the teacher, perhaps reinforcing the perceptions which were, at least in part, originally responsible. It is all very subtle, and much of it beyond conscious apprehension and analysis, but no less important for all that. That we do not "know" with any depth or precision what has taken place, and why, does not reduce its import a whit. Thus far Everyman will agree.

The existence, and possible consequences, of such effects have been demonstrated in many studies. An early and notorious example is "Pygmalion in the classroom" (Rosenthal and Jacobson 1968) which, though ethically and methodologically flawed, was an early demonstration of an apparent effect in the classroom. (Pupils randomly identified as "bloomers" went on to relative success apparently solely on the basis of the teacher's consequent perception of them.) Similar effects on perception-driven outcomes due to social class (eg Reid 1989, Bynner & Steedman 1995, Tizard & Hughes 1984), to race (eg Gipps & Murphy 1994), to gender (eg Brown 1990, Millard 1997) and to pupil-teacher interaction (eg Brophy & Good 1970, Jordan et al 1993, Muthukrishna & Borkowski 1995, Chan 1994 & 1996)), have been demonstrated.

Attribution theory is a way of analysing the perceptions a person may have of the reasons for behaviours, performance characteristics, successes or failures, self-images, attitudes and so on as well as their own beliefs about all or any of these. The process whereby attribution of the cause of affect, attitude or achievement is reached has been divided into three main steps: antecedents, attributions and consequences (Kelly and Michela 1980).

Antecedents are the data which enable attributions to be made. They include "facts" or perceptions about a student, or a situation which includes the student, beliefs about the student, or the student's beliefs and the motivation of the student. A perceived antecedent may be real, or it may be mis-perceived. A student's ability may be adequate, or better, but perceived as poor. It may be that a student's perception of the difficulty of, and demands presented by, particular kinds of task are at variance with their actual complexity. It may be that a teacher believes that a student's abilities are other than they really are, or that certain tasks are likely to be more or less problematic for the student. Outcomes and performance characteristics, not to mention attitudes, expectations and motivations, may be much affected

by these perceptions of reality. Such perceptions are, it follows, of great educational importance. Perceptions, a virtual reality, may have very important effects on actual reality.

Attributions are those perceptions of the causes of affect, performance or achievement which arise from antecedents. Attributions are constructs. They may (or may not) be consciously, overtly and formally recognised and reported. They may not even be particularly knowable. Attributions, though, may have important affective consequences which may include altered or reinforced expectations, attitudes and motivations. Attributions may alter or reinforce particular approaches and actions. Attributions may thus become a new generation of antecedents, spawning new attributions with new consequences, and round and round in self-fulfilling circles of endless alteration or reinforcement. Weiner (1980) discusses this. He speaks of three "causal dimensions" to success or failure. Attributions can themselves be classified into three main axes as follows:

Are the causes *internal or external*? Are they an inherent aspect of the student or do they arise from circumstance? (Ability, for example, is usually presumed to be internal whereas the quality of parenting or teaching received is external.) Are the causes *stable or unstable*? Do they change over time? (Mental ability, for example, is presumed to be relatively stable whereas the ability to ski may be unstable; if skiing lessons are taken a change may occur.) Are the causes *controllable or uncontrollable*? Are they susceptible to deliberately induced change? (Effort put in, for example, is unstable but is largely, and in most circumstances, controllable. Affect may be unstable but is frequently largely uncontrollable.)

Consequences arise. A belief that achievement is the result of an internal, unstable and controllable cause, such as whether much effort was actually put in, will clearly have different effects on student motivation and behaviour compared, for example, to the belief that achievement was due to a stable and uncontrollable factor entirely internal to the student (developmental dyslexia for example).

"...pupils who tend to attribute success to internal, mainly stable and controllable causes, and who attribute failure to internal-unstable-controllable causes, tend to exhibit adaptive, mastery-oriented achievement behaviour. That is, they tend to approach rather than avoid achievement tasks, tend to persist in the face of failure

and tend to perform achievement tasks with greater intensity. Pupils who tend to attribute success to external causes and failure to internal-stable-uncontrollable causes show a very different pattern. These pupils tend to exhibit maladaptive, helpless achievement behaviour. That is, they tend to avoid achievement tasks, tend to give up in the face of failure and do not perform achievement tasks with great intensity." (Bar-Tal in Barnes et al 1984. p. 211)

This last is a description of the "learned helplessness" syndrome where self-belief and motivation (at least in relation to a particular type of task) are abnormally low. Chan studied the effects of attribution on performance and meta-cognition and found a very clear "learned helplessness" effect:

"... poor readers were less likely than the average readers to attribute success to effort or ability but were more likely to attribute success to luck or to attribute failure to lack of ability or bad luck, a causal attribution pattern typical of the learned helplessness phenomenon." (Chan 1996 p. 123)

Chan (1996) refers to "*maladaptive attributional beliefs (attributing successes and failures to factors over which they have no control, leading to feelings of helplessness)*" leading directly to "*maladaptive behaviour*". In 1994 she said that:

"The issue of motivation is particularly critical for students with learning difficulties because of the learned helplessness problem associated with repeated failures...these students are unlikely to try alternative ways of solving a problem when encountering difficulties ... believing there is nothing they themselves can do in such situations."

(Chan 1994 p.320. her emphasis)

Johnston (1985) is revealing. He claims that the aetiology of difficulty in early literacy acquisition is probably not neurological.

"Rather than the neurological and processing deficit explanations currently in vogue, we need to consider more seriously explanations which stress combinations of anxiety, attributions, maladaptive strategies, inaccurate or non-existent concepts about aspects of reading and a huge variety of motivational factors." (Johnston 1985 p.174)

Johnston claims (p.168) that initial failure easily to acquire literacy skills causes "... a very severe form of anxiety, severe enough to be called a neurosis." and (on p.169) that there will be "... a general avoidance of print detail and a shutting down of processing under stress.". He goes on, though, (on p.169) to say that "while anxiety seems very important, at least as important are the causes to which these individuals attribute their failure.". He describes such attribution as causing "helpless" and "passive" behaviour and as being "...probably the most detrimental to learning."

Johnston also, however, claims that teachers affect students' attributions:

"Teachers treat less able students quite differently from more able students and, in doing so, tell the less able students that they are constitutionally less able. This attribution of failure to a cause for which there is little hope of a cure is profoundly unmotivating." (Johnston 1985 p.170)

Fang (1996 p.51) claims that "... teachers who believe that all children can learn will promote literacy development while those who believe that lack of ability is a stable state will produce a debilitating environment.". Bar-Tal says simply that "...teachers greatly influence pupils' use of causes to explain their successes or failures". (in Barnes et al 1984 p. 211) Muthukrishna and Borkowski (1995 p. 444) suspect that "... motivational goals & cognitive skills develop in a reciprocal fashion" and that "...it is possible to influence motivational goals and beliefs" and also that "...a teacher's beliefs can have important influences on establishing an appropriate context for generalised learning...".

That affect has such powerful effects on cognition is not surprising, as it has long been established, as Niedenthal and Halberstadt (1995 p.25) point out, that "... brain mechanisms involved in the processing of emotion have extensive interconnections with cortical areas that subserve higher cognitive processes.". We recognise how intertwined are affect and cognition through observation and this is borne out by brain architecture. No wonder maladaptive attribution has such a debilitating effect on metacognition, learning, behaviour and performance. Maladaptive attribution is chiefly learned as a result of persistent failure consistently attributed to personal deficit. Since many ABE students have had precisely such experience of repeated failure and low expectation over long periods of time, small wonder that they exhibit such poor metacognitive strategies, such passivity, timidity and lowered self-esteem, such learned helplessness, at least in the face of literacy related tasks.

Developmental dyslexia, if it is a condition at all, is a specific learning difficulty relating to literacy which is caused by a neurological dysfunction. If it is to have meaning at all the diagnosis must contain this basic neurological aetiology, whatever processing or language management deficit it is said to produce. What effect might such a diagnosis, under the present paradigm, have on attribution? Many ABE students already show some degree of learned helplessness, at least in respect of literacy – will a diagnosis of irremediable dysfunction help or hinder?

The diagnosis of dyslexia attributes the learning difficulty apparently being experienced to a fundamental and unchangeable deficit. A neurological deficit is, within the present paradigm, unequivocally internal, stable and uncontrollable. Dyslexia is a perfect example of such an attribution. In the present paradigm then, to the extent that the diagnosis is accepted it must induce learned helplessness and will necessarily reduce motivation and lower expectation. This will not apply only to the student – it will inevitably also affect the teacher. Indeed the survey shows clearly that, with perhaps one exception, the sample population of ABE providers instantly lowered expectations of, and immediately narrowed the strategies offered to, a student diagnosed as suffering from dyslexia.

In the words of Cynthia Klein, in a widely disseminated booklet purporting to enable tutors in ABE to diagnose dyslexia:

"After having a diagnostic session, many students want to know more about the how and why of their condition. Dyslexia is a disability or specific learning difficulty which needs to be identified and clarified with the student. This is not because of some desire to label students, but because students need to understand that their difficulties will not go away with tuition, practice, hard work, etc."

(Klein 1993 p. 54).

Such advice that, apart from making a diagnosis, there is not much which can be done must affect the attitude and expectation with which a "dyslexic" student is approached by a tutor who has heeded it. It cannot but similarly affect the attitudes and motivations of the student him- or herself. This study has shown that tutors' attitudes, beliefs, expectations and actions are much affected by the diagnosis of dyslexia and the present argument claims that this must powerfully affect the student, as must an acceptance of the implications of the diagnosis. The diagnosis may, in fact, be a far from neutral thing. It may even be highly, if subtly, detrimental. There are reports of ABE students experiencing relief at the diagnosis at

one level (aptly described as making poor literacy skills more "*socially acceptable*" by one respondent to this survey). There are, however, also reports of ABE students feeling horror at the diagnosis at another level ("*doom*" as one respondent to this survey characterised it). It is possible, indeed, given the complexity of the human personality, for both effects to apply at their different levels simultaneously. A particular student may be relieved to be given a socially acceptable reason for poor literacy skills while unwittingly acquiring an attributional block to learning them, at exactly the same moment.

It was clear from the data that respondents (with perhaps a single exception) did not feel able to challenge a diagnosis of dyslexia. In the face of the diagnosis respondents largely ceased to seek, or to champion, alternative aetiologies. Respondents concentrated, following a diagnosis, on prescriptive, skill-based tuition to the apparent neglect of other methodologies. No respondent, for example, wrote about using "language experience" methods or of the importance of challenging the "Matthew Effect" through delivering success. There was no mention anywhere in the responses of "shared (or paired) reading" or the employment of any creative writing approaches. Methods involving the promotion of individuality, flair, metacognition or personal autonomy did not feature.

It is very likely that the data in this area do not reflect respondents' practice in "real life" absolutely accurately. Respondents may provide less restricted tuition in fact than their responses indicate in theory. We have good evidence in these data, nonetheless, that respondents feel it incumbent upon them to react as they report in their written responses to a diagnosis of dyslexia. When thus reacting to the diagnosis of a condition many respondents fundamentally distrust, by advocating a methodological approach many of them would probably question, perhaps the ABE providers sampled are responding to the political strength dyslexia presently enjoys. They must, of course, operate in a real, and increasingly overlooked, world. In this world both punters and management appear largely to accept dyslexia as a neurological deficit, and apparently see it as a common condition. The ABE provider or tutor may, as a result, feel themselves to be the filling in a sinister, yet inevitable, sandwich.

Dyslexia is currently extraordinarily popular. Its almost universal acceptance seems to grow with popular awareness of, and concern about, the prevalence of poor literacy skills. This may not be coincidental. Dyslexia may be playing a significant, if unacknowledged, social role as a protection from profoundly disturbing ideas. If the concept of dyslexia were ever to be seriously challenged, alternative explanations for a demonstrably real, and

distressingly widespread, literacy problem would have to be found. Many credible (if disagreeable and frequently socially or financially expensive) aetiologies are already to hand. They often involve social and/or personal failure; they frequently demand the acceptance of some responsibility. Is dyslexia so widely and firmly accepted in order that we may be protected from alternatives we suspect and fear may be more genuine explanations for such a socially shameful shortcoming?

Summary and conclusions.

This study is a small scale piece of research, which was loosely designed. The study was not designed to be sufficiently tightly controlled to elucidate the finer points of ABE providers' beliefs with any mathematical precision. However, its very looseness has enabled some broad fields to be explored and some clear conclusions, using the voice of the sample, to be drawn with some conviction. The most immediately obvious conclusion, running through almost every page of data, is that there is a strong sense of uncertainty and insecurity, even worry and confusion, about dyslexia among most respondents to this questionnaire. There is considerable experience speaking from the data, but only one respondent has done much reading related directly to dyslexia. This respondent is completely persuaded. However no other respondent, persuaded or unpersuaded, is completely sure of their opinion or belief in respect of dyslexia. There is much equivocation and self-doubt inadvertently revealed to the reader of the data but also recognised quite consciously, and expressed quite overtly, by respondents themselves.

The twelve respondents who completed the questionnaire survey have very various beliefs about whether dyslexia exists or not. A quarter of the sample believe dyslexia is a neurologically based disability, disabling literacy skill acquisition and management. Half the sample, though, have considerable doubt that there is any such disability. Of these six respondents, half do not accept that there is a neurological defect producing dyslexia, while half express a fundamental unease about it as an explanation for poor literacy skills. On the basis of their responses, therefore, it is possible to classify about quarter of the sample as "persuaded" and another quarter as "unpersuaded", with about half the sample uncertain but showing a tendency, if any, towards being "unpersuaded".

Only one respondent was able to provide a clear definition of dyslexia, though even she attributed the manifestations of the syndrome to two distinct cognitive domains in her definition. This respondent's definition was the only one to claim that the syndrome was caused by a neurological deficit. Indeed, in the entire survey only two other respondents specifically claimed anywhere that neurological deficit was, or might be, the reason for dyslexia. Almost half the sample offered no definition of dyslexia at all. Of the definitions which were offered most were extremely broad and general, or were simply a description of a performance / potential discrepancy.

The level of confidence in relation to "the facts" about dyslexia was very low indeed. Much comment overtly states respondents' lack of confidence, much response hedges and wobbles whenever a "factual" response is sought. The same lack of confidence was observable in relation to cognitive psychology itself, where most respondents sought to cover all conceivable bases and where considerable insecurity in respect of "the facts" was openly expressed. This was only partly explained by a robust preference among respondents for practical, strategic thinking rather than more abstract, general theorising about the cognition underpinning literacy.

Faced with a list of "signs" which might be indicative of dyslexia the sample population showed tremendous variation. The respondent who selected the most signs as indicative chose six times as many as the respondent who chose the least. Respondents overwhelmingly chose the "discrepancy model" indicators and the "emergent literacy" indicators. Oddly, poor memory was chosen as an indicative sign by two thirds of the sample. The heredity indicator was chosen by only one third of the sample despite loud, national publicity being given to another "discovery of the gene for dyslexia" during much of the period of this survey. The now discredited indicators for cross-laterality attracted the vote of almost half the sample. An interesting finding was that the more persuaded respondents were the most at ease with a wide spread of the signs of dyslexia, whereas the less persuaded chose fewer and more closely related signs.

Diagnosis of dyslexia in presenting students was not even attempted by half the sample (though they might still, professionally, be obliged to deal with "cases" diagnosed elsewhere). This failure to seek diagnosis was partly due to the tendency, very strong in many respondents, to look for productive teaching and learning strategy rather than pathology. It was, though, also partly due to the very low opinion among most respondents of psychometric testing, coupled with a recognition among respondents of the damage that testing *per se* can

inflict on ABE students' confidence and motivation. Quarter of the sample reported that they actually found psychometric testing damaging or likely to be counterproductive. Only quarter of the sample found them useful and one of these respondents said they were only useful for children. Only one (fully persuaded) respondent carried out a full battery of such tests and as a result most experts would regard her as the only respondent gathering sufficient data to enable a diagnosis to be made at all.

Worryingly, particularly in view of the above, half the sample deliberately altered their teaching methodology in the face of a diagnosis of dyslexia. This change was invariably stated to be a considerable "dumbing down" of tuition, in fact. The language used by respondents grew overwhelmingly negative. There was a great deal of comment indicating that work would become much more "structured" and repetitive, with heavy use of reinforcement and revision of discrete items and with, very specifically, a reduced range of strategies, these to be skills-based. There was also a large dip in respondents' expectations of "dyslexic" students, and about the likely outcomes of tuition. In respect of expectations as such, the language grew even more negative than it had become in respect of teaching methodology. Only one third of the sample claimed to expect any progress at all and even these claims were not resoundingly positive. Fully two thirds of the sample wrote in grey, negative words. They foresaw great difficulty and slow progress full of setback. There was small confidence that autonomous functional literacy would ever be reached, or maintained if it were.

There remains genuine debate as to the validity of dyslexia as a concept. In the view of the present researcher, after analysis of the very considered responses to the survey questionnaire, the concept has not convinced a majority of the present sample of twelve committed and thoughtful ABE providers. In view of this, and the negative response to its application as a diagnosis, it may be that the concept is now doing more harm than good. Signs of learned helplessness, following a diagnosis of dyslexia in a student, were detectable, in respect of that student, in almost all the ABE providers sampled. A diagnosis also made those sampled feel that tuition should be restricted to tightly controlled, cognitive skill-based structures, behaviouristically delivered.

Neither of these outcomes is desired by a single respondent. That they seem, notwithstanding, to be anticipated or to happen, may be at least partly a political effect as dyslexia may be today's most expedient aetiology for widespread and apparently intractable literacy failure. Certainly both the ABE provider's clients and their paymasters may presently be fully persuaded of it. In the words of J.K. Galbraith, perhaps: "*Anything so convenient must be right.*" (from "The Affluent Society").

ABE, today, must often be delivered in an atmosphere of widespread and passionate belief in dyslexia. Even among those who remain "unpersuaded" it may exert strong effect, which may not be benign. With its tendency to reinforce learned helplessness, and to mesmerise and hobble tutors and their public, dyslexia may, in fact, be an insidious, but nonetheless dangerous, liability at the chalkface.

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